

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Application of:

SAVERIO C. FALCO ET AL

CASE NO.: BB1193DIV

SERIAL NO.: UNKNOWN

GROUP ART UNIT: UNKNOWN

FILED: CONCURRENTLY HEREWITH

EXAMINER: UNKNOWN

FOR: PLANT AMINOACYL-TRNA SYNTHETASE

**PRELIMINARY AMENDMENT**

Assistant Commissioner for Patents  
Washington, DC 20231

Sir:

Prior to examination on the merits, please amend the above-referenced application as follows:

**IN THE CLAIMS**

Please cancel claims 1-30.

Please add the following new claims:

31. An isolated polynucleotide comprising:

(a) a nucleotide sequence encoding an lysyl-tRNA synthetase, wherein the amino acid sequence of the synthetase and the amino acid sequence of SEQ ID NO:10 or SEQ ID NO:14 have at least 80% identity based on the Clustal alignment method, or

(b) the complement of the nucleotide sequence.

32. The polynucleotide of claim 31, wherein the amino acid sequence of the synthetase and the amino acid sequence of SEQ ID NO:10 or SEQ ID NO:14 have 85% identity based on the Clustal alignment method.

33. The polynucleotide of claim 31, wherein the amino acid sequence of the synthetase and the amino acid sequence of SEQ ID NO:10 or SEQ ID NO:14 have 90% identity based on the Clustal alignment method.

34. The polynucleotide of claim 31, wherein the amino acid sequence of the synthetase and the amino acid sequence of SEQ ID NO:10 or SEQ ID NO:14 have 95% identity based on the Clustal alignment method.

35. The polynucleotide of claim 31 comprising the nucleotide sequence of SEQ ID NO:9 or SEQ ID NO:13.

36. The polynucleotide of claim 31, wherein the synthetase comprises the amino acid sequence of SEQ ID NO:10 or SEQ ID NO:14.

37. A chimeric gene comprising the polynucleotide of claim 31 operably linked to a regulatory sequence.

38. A vector comprising the polynucleotide of claim 31.

39. A method for transforming a cell comprising transforming a cell with the polynucleotide of claim 31.
40. A cell comprising the chimeric gene of claim 37.
41. A method for producing a plant comprising transforming a plant cell with the chimeric gene of claim 31 and regenerating a plant from the transformed plant cell.
42. A plant comprising the chimeric gene of claim 37.
43. A seed comprising the chimeric gene of claim 37.
44. An isolated polynucleotide comprising:
- (a) a nucleotide sequence encoding an lysyl-tRNA synthetase, wherein the amino acid sequence of the synthetase and the amino acid sequence of SEQ ID NO:16 have at least 90% identity based on the Clustal alignment method, or
  - (b) the complement of the nucleotide sequence.
45. The polynucleotide of claim 44, wherein the amino acid sequence of the synthetase and the amino acid sequence of SEQ ID NO:16 have 95% identity based on the Clustal alignment method.
46. The polynucleotide of claim 44 comprising the nucleotide sequence of SEQ ID NO:15.
47. The polynucleotide of claim 44, wherein the synthetase comprises the amino acid sequence of SEQ ID NO:16.
48. A chimeric gene comprising the polynucleotide of claim 44 operably linked to a regulatory sequence.
49. A vector comprising the polynucleotide of claim 44.
50. A method for transforming a cell comprising transforming a cell with the polynucleotide of claim 44.
51. A cell comprising the chimeric gene of claim 48.
52. A method for producing a plant comprising transforming a plant cell with the chimeric gene of claim 44 and regenerating a plant from the transformed plant cell.
53. A plant comprising the chimeric gene of claim 48.
54. A seed comprising the chimeric gene of claim 48.
55. An isolated polynucleotide comprising:
- (a) a nucleotide sequence encoding an lysyl-tRNA synthetase, wherein the amino acid sequence of the synthetase and the amino acid sequence of SEQ ID NO:12 have at least 85% identity based on the Clustal alignment method, or
  - (b) the complement of the nucleotide sequence.
56. The polynucleotide of claim 55, wherein the amino acid sequence of the synthetase and the amino acid sequence of SEQ ID NO:12 have 90% identity based on the Clustal alignment method.

57. The polynucleotide of claim 55, wherein the amino acid sequence of the synthetase and the amino acid sequence of SEQ ID NO:12 have 95% identity based on the Clustal alignment method.

58. The polynucleotide of claim 55 comprising the nucleotide sequence of SEQ ID NO:11.

59. The polynucleotide of claim 55, wherein the synthetase comprises the amino acid sequence of SEQ ID NO:12.

60. A chimeric gene comprising the polynucleotide of claim 55 operably linked to a regulatory sequence.

61. A vector comprising the polynucleotide of claim 55.

62. A method for transforming a cell comprising transforming a cell with the polynucleotide of claim 55.

63. A cell comprising the chimeric gene of claim 60.

64. A method for producing a plant comprising transforming a plant cell with the chimeric gene of claim 55 and regenerating a plant from the transformed plant cell.

65. A plant comprising the chimeric gene of claim 60.

66. A seed comprising the chimeric gene of claim 60.

#### REMARKS

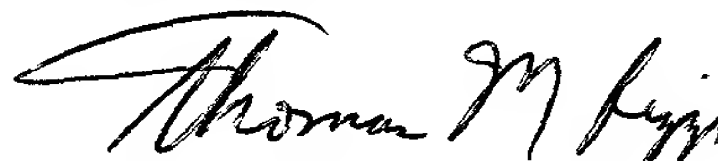
Claims 1-30 have been cancelled, and claims 31-66 have been added. Claims 31-66 are pending.

Support for the sequence identities recited in the claims is found on page 6, first full paragraph of the specification. Support for claims 41-43, 52-54, and 64-66 is found in Examples 7 and 8, pages 22 through 25 of the specification.

Please charge any necessary fee to Deposit Account 04-1928  
(E. I. du Pont de Nemours and Company).

In view of the foregoing, allowance of the above-referenced application is respectfully requested.

Respectfully submitted,



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Dated: May 29, 2001